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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,093	06/12/2001	Cornelis Reinier Johannes Schonenberg	702-010383	1287

7590

03/31/2003

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EXAMINER

LE, UYEN CHAU N

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/787,093	<b>Applicant(s)</b> SCHONENBERG ET AL.	
	<b>Examiner</b> Uyen-Chau N. Le	<b>Art Unit</b> 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7</u> . | 6) <input type="checkbox"/> Other: _____                                    |

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## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Prelim. Amdt/Amendment***

2. Receipt is acknowledged of the Preliminary Amendment filed 12 June 2001.

### ***Specification***

3. The abstract of the disclosure is objected to because of its minor informality, that is as following.

Re abstract, line 1: Substitute "The present invention relates to a" with -- A --.

Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 24-47 been renumbered 23-46.

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5. Claims 26 and 35 are objected to because of the following informalities:

Re claim 26, line 3: Substitute "it" with -- the foldable mirror --.

Re claim 35, line 8: Substitute "the outer ends" with -- outer ends --.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 23, lines 10-11: "the distance between the standing walls amounts to" is not clear.

Appropriated clarification and verification is required.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 23, 25-28 and 32-46 rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al (GB 2,345,370) in view of Quinn et al (US 5,629,510).

Re claims 23, 32, 35-36 and 38-46: Tamburrini et al discloses a device/barcode reader for scanning and/or recognizing one or more barcodes comprising a laser light source 550 for transmitting laser light 556; a rotatable polygonal mirror (figs. 16-17) for reflecting the transmitted laser light 556; a number of fixedly disposed flat mirrors [564, 565, 566, 568, 580, 581, 582 and 583] for reflecting laser light 556 (p. 21, line 15 through p. 24, line 36); collection mirror and detector, which serves as a pick-up element for picking up laser light 556 scattered by a barcode (page 23, lines 8+); a compact housing (figs. 6-7 & 10) to be hand held in which the laser light source 550, the polygonal mirror, the flat mirrors [564, 565, 566, 568, 580, 581, 582 and 583] and the pick-up element are arranged, wherein the housing is completely constructed from a bottom side, a top side, a standing rear wall, a standing front wall and two standing side walls arranged there-between and wherein the bottom side of the housing is substantially flat for placement of the housing without a holder and scanning is performed through the standing front wall only when placed on the bottom side (see figs. 6-7 and 10; p. 18, lines 3-19; p. 19, lines 10-26).

Tamburrini et al fails to teach or fairly suggest that the distance between the standing walls amounts to 1.2-5.5 inches.

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Quinn et al teaches the housing 14 is about 1.5 inches wide, 1.0 inch high, and .75 inch deep (col. 5, lines 30-32).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Quinn et al into the teachings of Tamburrini et al in order to provide Tamburrini et al with a more compact system (i.e., due to its portable size), which allows the user/operator to carry along conveniently (e.g., in his/her pocket, etc.). Furthermore, such modification would have been an obvious design variation and a substitution of equivalents well within the ordinary skill in the art, for better handling of the apparatus.

Re claims 25-28 and 33-34: Tamburrini et al as modified by Quinn et al has been discussed above and further discloses a folded mirror 273 (Tamburrini et al: p. 10, lines 16+ and p. 16, lines 13+); a movable mirror (Tamburrini et al: p. 11, lines 22-36); a single lens is moved from one position to another (Tamburrini et al: p. 29, lines 12+), and a reflected mirror 20 is curvature (Quinn et al: col. 5, lines 65+), but fails to teach or fairly suggest in the first position, a first mirror surface which is substantially flat reflects the laser light incident thereon and in the second position, a second mirror surface which is substantially concave reflects the laser light incident thereon.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate a foldable mirror having a first surface is substantially flat and a second surface is substantially concave into the teachings of Tamburrini et al/Quinn et al in order to provide Tamburrini et al/Quinn et al with a more feasible and compact system (i.e., one single mirror would accommodate two types of surfaces: flat and concave rather than two

dedicated mirrors, which would reduce the occupancy of space, thus a smaller size of the apparatus can be accomplished, and therefore, reducing the cost of facilitating).

Re claim 37, Tamburrini et al has been discussed above but fails to teach or fairly suggest that double-sided tape provided with adhesive is arranged between the ends of the polygonal mirror and the rotating support member.

Quinn et al teaches a parabolic mirror 20 is affixed to the rotating support member/rotor body 22 by adhesive surface 62 (figs. 8 and 10; col. 5, lines 60+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of using adhesive technique as taught by Quinn et al for affixing the mirror to the rotating support member into the teachings of Tamburrini et al in order to provide Tamburrini et al with a more feasible system (i.e., due to the less cost of adhesive). Furthermore, such modification would provide Tamburrini et al with a more accurate system wherein the adhesive would keep the mirror affixed to the rotating support member, preventing the mirror from loosing and rotating at different speed/angle with the rotating support member, and thus preventing the system from producing an inaccurate result from an inaccurate reading.

10. Claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al in view of Metlitsky et al (US 5,306,900). The teachings of Tamburrini et al have been discussed above.

Re claims 24 and 31, Tamburrini et al discloses a sensing circuit which servers as a position determining means for determining the position of the rotatable polygonal mirror and a

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timing means, which serves as a control means for switching the laser light source on or off depending on the position of the rotatable polygonal mirror (p. 27, lines 1-31).

Tamburrini et al fails to teach or fairly suggest that both scan patterns being cast through one and the same window in the housing.

Metlitsky et al teaches scan patterns being cast through one and the same window 224 (figs. 4-6; col. 5, line 33 through col. 6, line 32).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Metlitsky et al into the teachings of Tamburrini et al in order to provide Tamburrini et al with a more feasible system (i.e., only one scanning window is required instead of two). Furthermore, such modification would provide Tamburrini et al with a more compact system wherein one window would occupy less space, thus a smaller size can be manufactured, and therefore providing the user with a flexibility of carrying the apparatus along conveniently (e.g., in his/her pocket, etc.).

11. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al as modified by Quinn et al as applied to claim 23 above, and further in view of Khowles (US 4,958,894). The teachings of Tamburrini et al/Quinn et al have been discussed above.

Re claims 29 and 30, Tamburrini et al/Quinn et al has been discussed above but fails to teach or fairly suggest that spring means arranged in the housing urge the operating member partially out of the housing whereby the folding means carry the foldable mirror into the second position and locking means for locking the operating member with the foldable mirror in the first position.



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Khowles teaches a coil 66, which serves as spring means, for pulling and pushing the bore 70 causing the mirror to oscillate about axis 24 and bumper 74, which serves as locking means, for keeping the mirror in position (fig. 2; col. 4, line 60 through col. 5, line 42).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Khowles into the teachings of Tamburrini et al/Quinn et al in order to provide Tamburrini et al/Quinn et al with a more accurate system wherein the mirror can be locked/kept in a desired position during operating/reading process, preventing the mirror from moving back and forth between the first and second positions, and thus providing a more accurate reading/scanning result.

#### ***Remarks***

12. It has been noted by the Examiner that WO 97/28512 A was cited as "X" reference in the PCT/NL99/00565 dated 10 September 1999.

#### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Herwig et al (US 4,268,752); Campo et al (US 6,105,871); Li (US 5,705,799); Coleman et al (US 5,602,376); Bridgelall et al (US 5,504,316); Ring et al (US 6,065,676); Tamburrini (US 5,962,838); Goldman et al (US 6,036,094); Bridgelall et al (US 5,861,615); diFazio et al (US 6,059,188); Knowles (US 5,019,714); Jwo et al (US 5,115,122),

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Knowles (US 4,962,980) are cited as of interest and illustrate a similar structure to a device for reading a barcode.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 703-306-5588. The examiner can normally be reached on M, T, F, SUN 9:30-7:00 and SAT 1:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL G LEE can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

*Uyen-Chau N. Le*

March 24, 2003

A handwritten signature in black ink, appearing to read 'Karl D. Frech', with a stylized, flowing script.

**KARL D. FRECH  
PRIMARY EXAMINER**